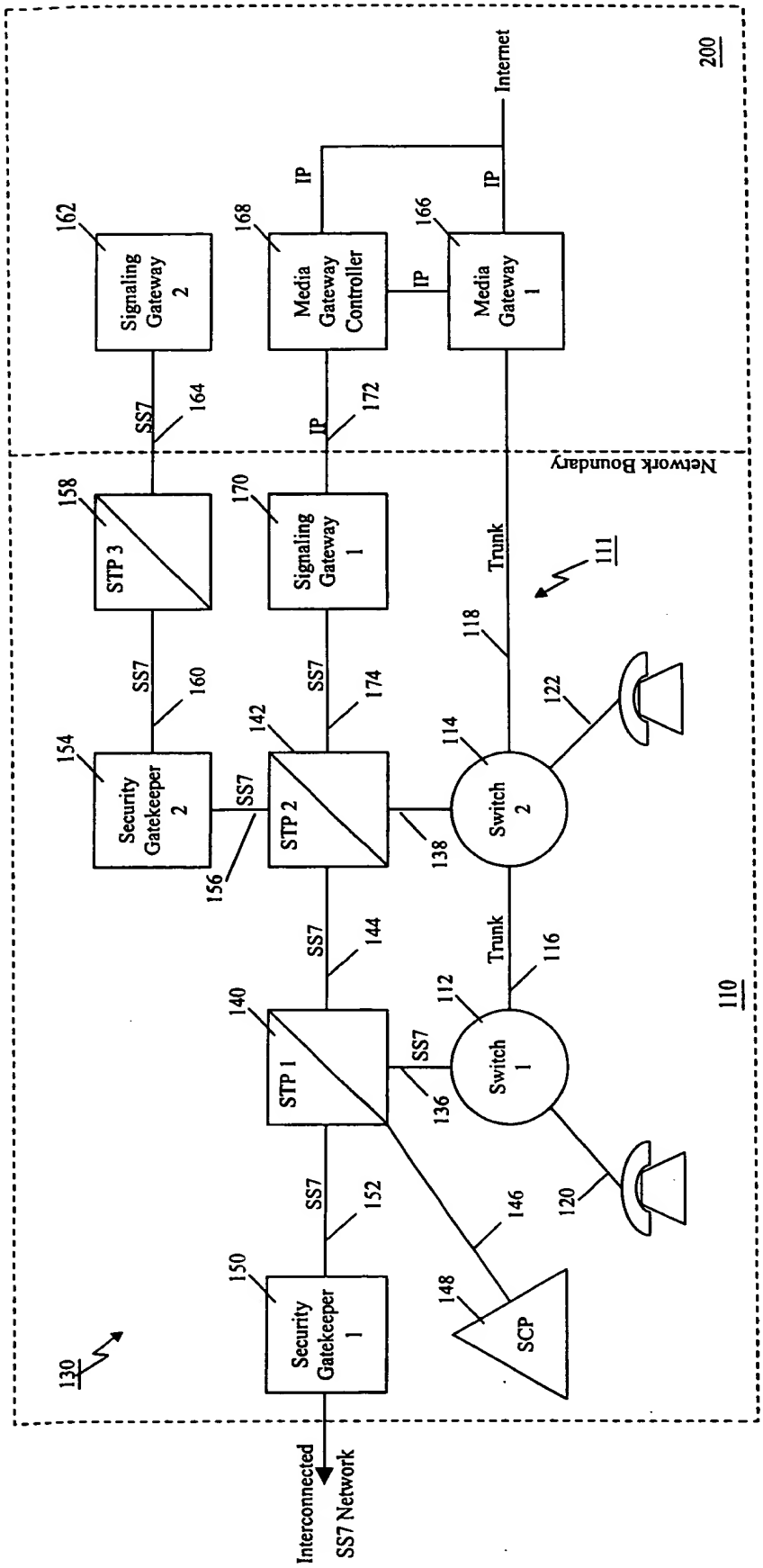

200
Internet
IP
IP
162
Signaling Gateway 2
168
Media Gateway Controller
166
Media Gateway 1
IP
SS7
164
IP
172
Network Boundary
158
STP 3
170
Signaling Gateway 1
Trunk
111
118
SS7
160
SS7
174
154
Security Gatekeeper 2
142
114
122
SS7
156
STP 2
138
Switch 2
SS7
144
Trunk
116
140
112
STP 1
SS7
136
Switch 1
110
SS7
152
146
120
150
Security Gatekeeper 1
148
SCP
130
Interconnected SS7 Network
100

Figure 1

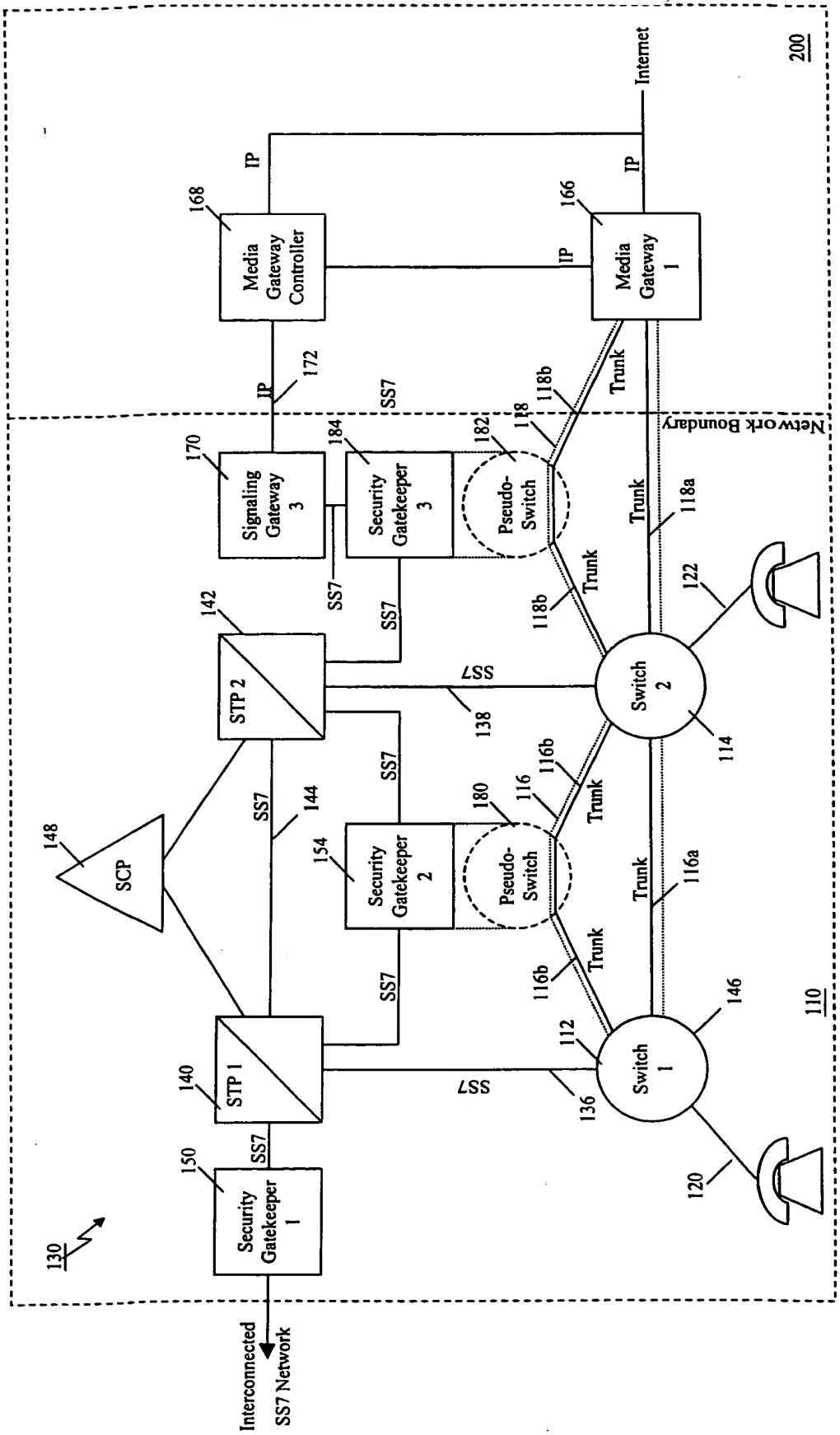

200
Internet
IP
168
Media Gateway Controller
166
Media Gateway 1
172
SS7
Network Boundary
170
Signaling Gateway 3
184
Security Gatekeeper 3
182
Pseudo-Switch
118
118b
Trunk
118a
142
STP 2
138
Switch 2
114
122
144
148
SCP
154
Security Gatekeeper 2
180
116
116b
116a
140
STP 1
136
Switch 1
112
146
110
150
Security Gatekeeper 1
120
130
Interconnected SS7 Network
100

Figure 2

TOTAL P.26

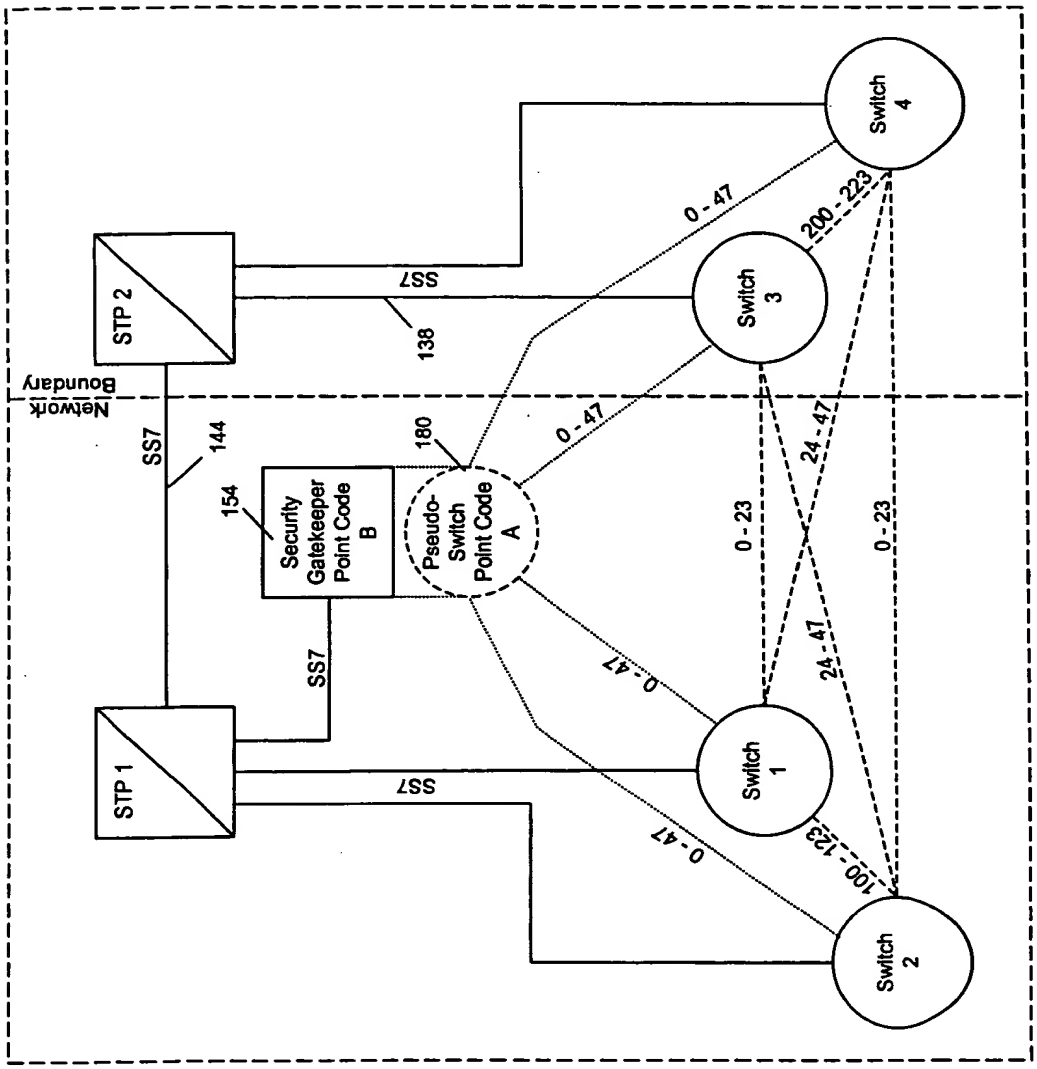



Figure 3

EXHIBIT 2026 IPR2020-00260

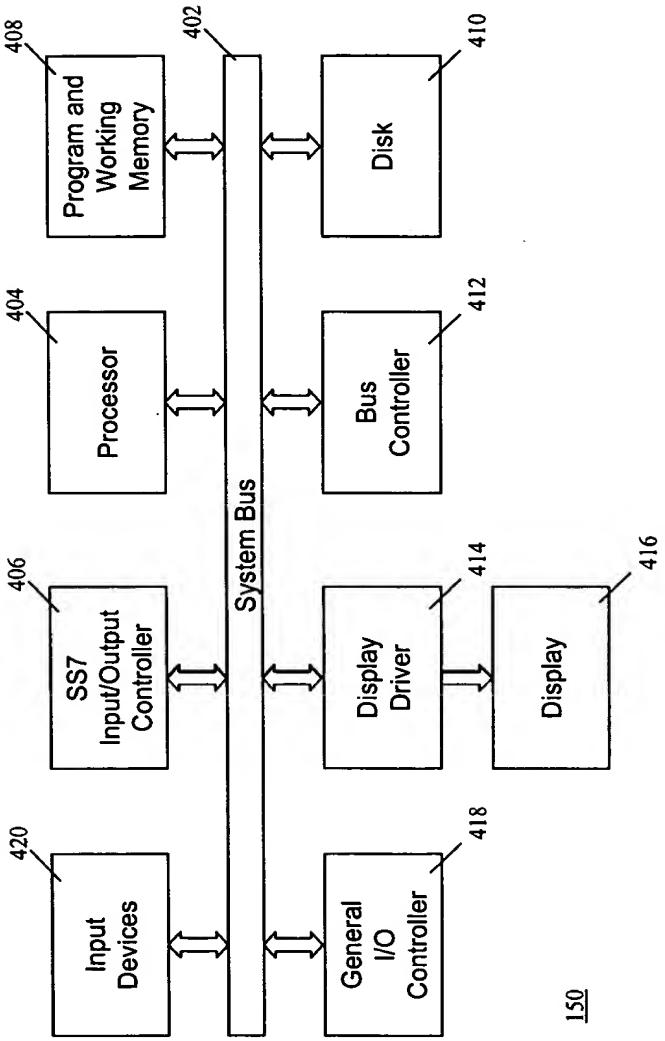
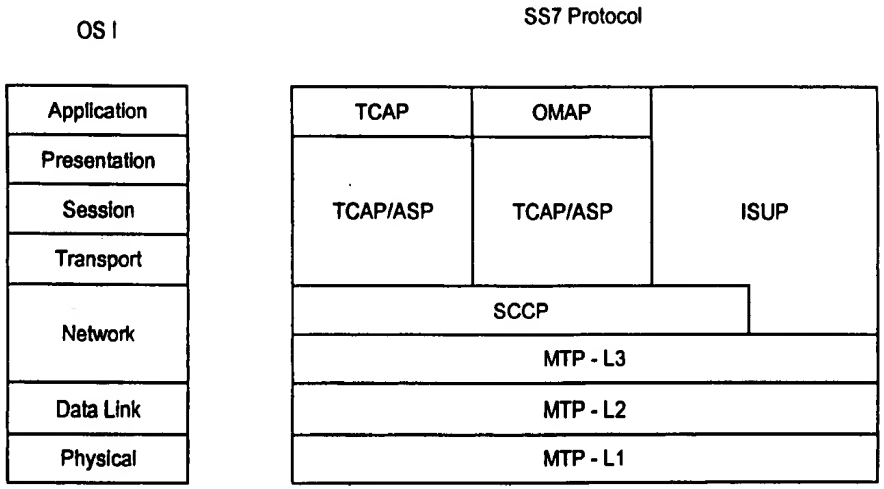



Figure 4

FOIOOT "2267B260




Legend

ASP - Application Service Part (Connection Oriented Protocols
MTP - Message Transfer Part (L1, L2 & L3)
OMAP - Operations, Maintenance, Application Part
SCCP - Signaling Connection Control Part
TCAP - Transaction Capability Application Part

Figure 5

FULBRIGHT & JAWORSKI, L.L.P.
Attny Docket:414.036CIP/09908722
Inventor(s): Arthur DOSKOW, et al
Serial No.: 09/781,922
Date Filed: February 5, 2001
Title: Method and Apparatus for In Context...
Sheet 5 of 15

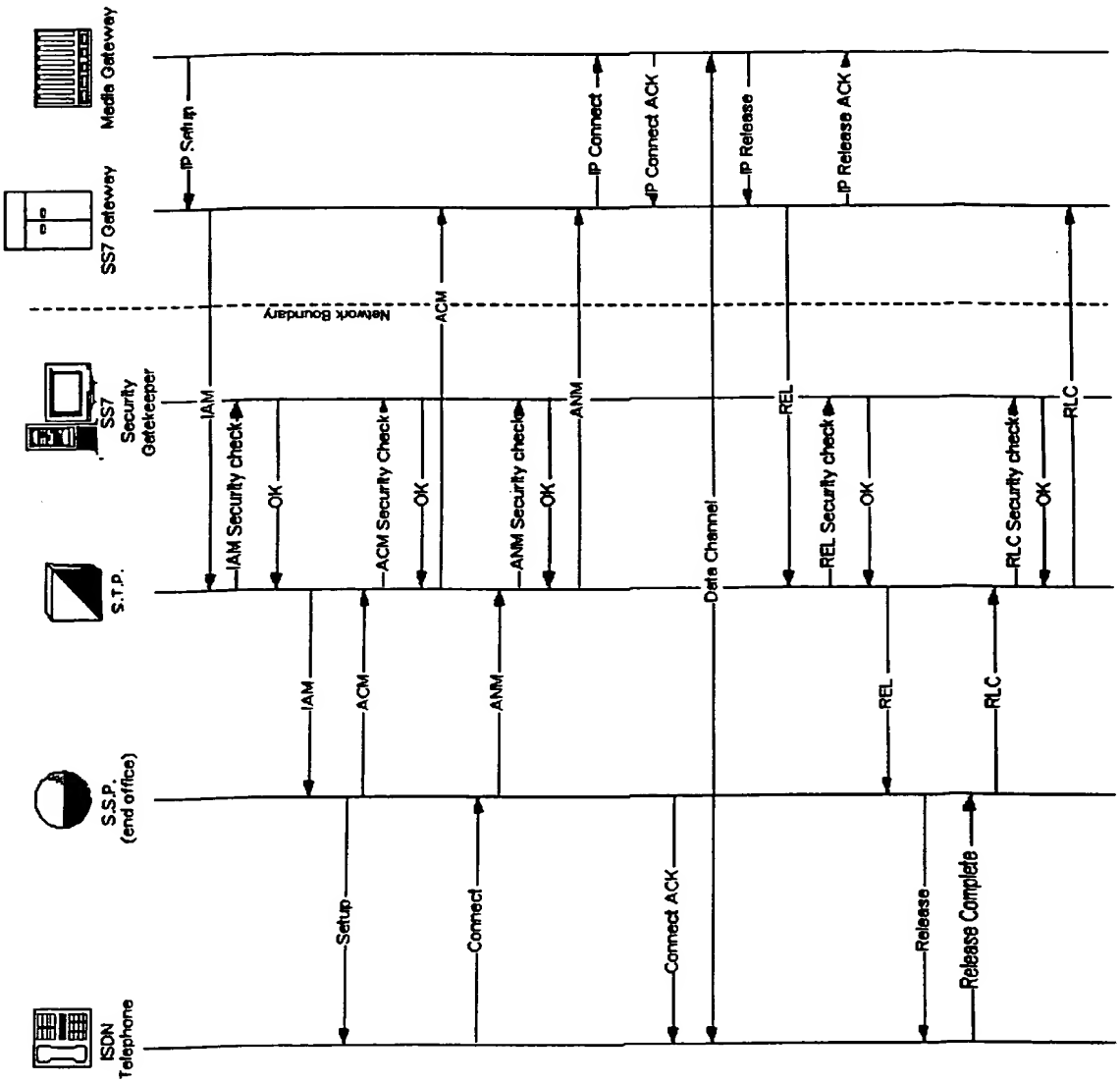

Media Gateway
SS7 Gateway
SS7 Security Gatekeeper
S.T.P.
S.S.P. (end office)
ISDN Telephone
IP Setup
IP Connect
IP Connect ACK
IP Release
IP Release ACK
Network Boundary
IAM
ACM
ANM
REL
RLC
IAM Security check
OK
ACM Security Check
OK
ANM Security check
OK
Data Channel
REL Security check
OK
RLC Security check
OK
IAM
ACM
ANM
REL
RLC
Setup
Connect
Connect ACK
Release
Release Complete

Figure 6

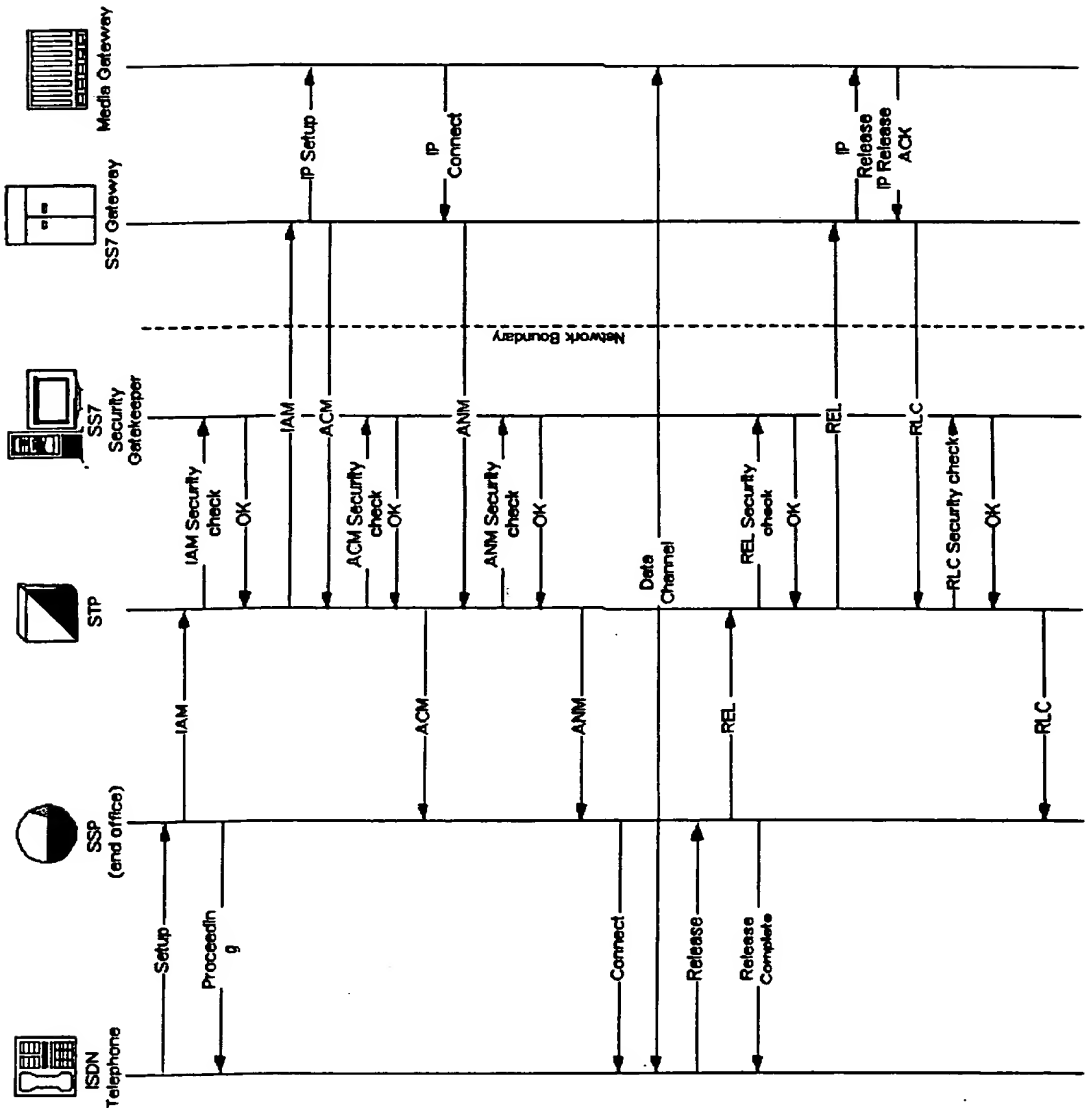

Media Gateway
SS7 Gateway
SS7 Security Gatekeeper
STP
SSP (end office)
ISDN Telephone
IP Setup
IP Connect
IP Release
IP Release ACK
Network Boundary
IAM
ACM
ANM
REL
RLC
IAM Security check
OK
ACM Security check
OK
ANM Security check
OK
Data Channel
REL Security check
OK
RLC Security check
OK
IAM
ACM
ANM
REL
RLC
Setup
Proceeding
Connect
Release
Release Complete

Figure 7

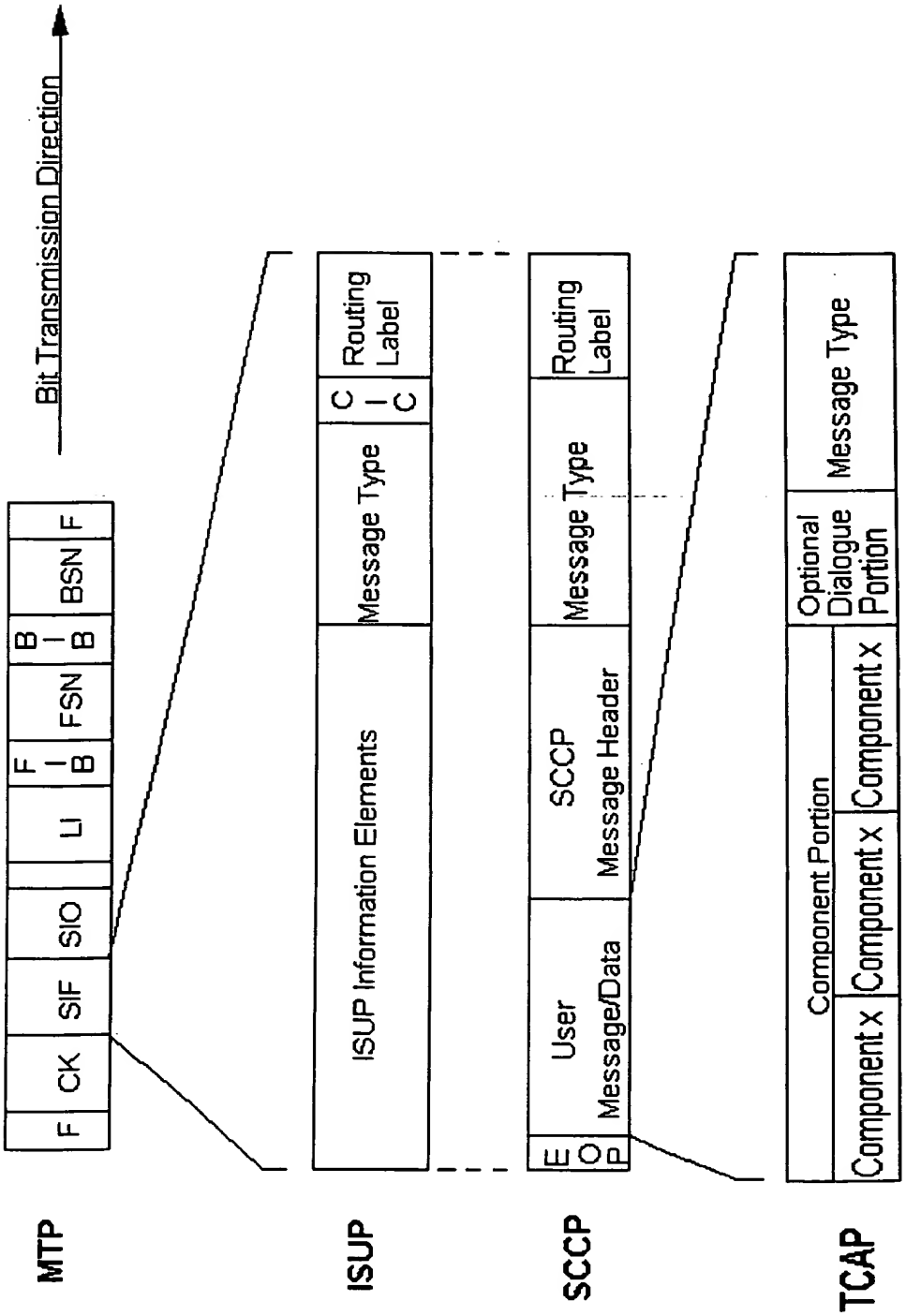

Bit Transmission Direction
MTP
F
CK
SIF
SIO
LI
F I B
FSN
B I B
BSN
F
ISUP
ISUP Information Elements
Message Type
C I C
Routing Label
SCCP
E O P
User Message/Data
SCCP Message Header
Message Type
Routing Label
TCAP
Component Portion
Component x
Component x
Component x
Optional Dialogue Portion
Message Type

Figure 8

TOTOOF "2267B260

ISDN User Part Message Format Coding
(LSSGR GR-606, Iss. 3 11/99)

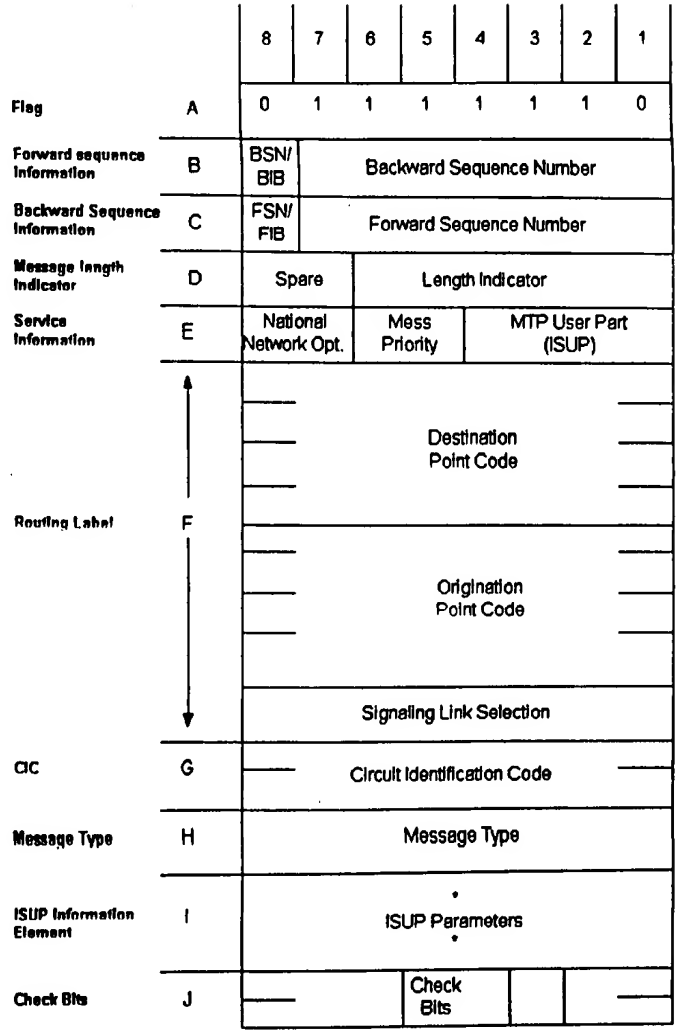



Figure 9

FULBRIGHT & JAWORSKI, L.L.P.
Attny Docket:414.036CIP/09908722
Inventor(s): Arthur DOSKOW, et al
Serial No.: 09/781,922
Date Filed: February 5, 2001
Title: Method and Apparatus for In Context...
Sheet 9 of 15

TOTOOT: 2267826O

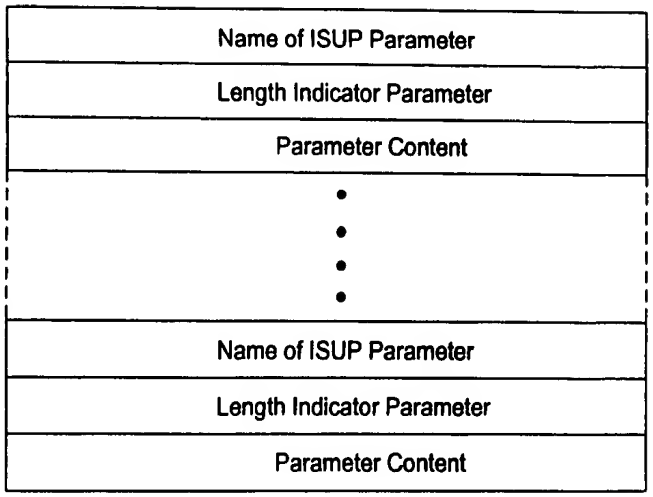



Figure 10

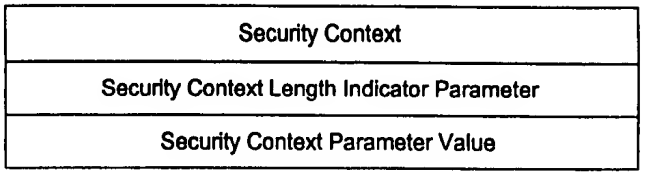



Figure 11

**Security Context Values**

| Value | Meaning |
|---|---|
| 0 | Not used. |
| 1 | Data Encryption Algorithm |
| 2 | Integrity Check |
| 3 | Message Code Authentication |
| 4 | Sequence, Timestamp and Identification |

Figure 12

FULBRIGHT & JAWORSKI, L.L.P.
Attny Docket:414.036CIP/09908722
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Serial No.: 09/781,922
Date Filed: February 5, 2001
Title: Method and Apparatus for In Context...
Sheet 10 of 15

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

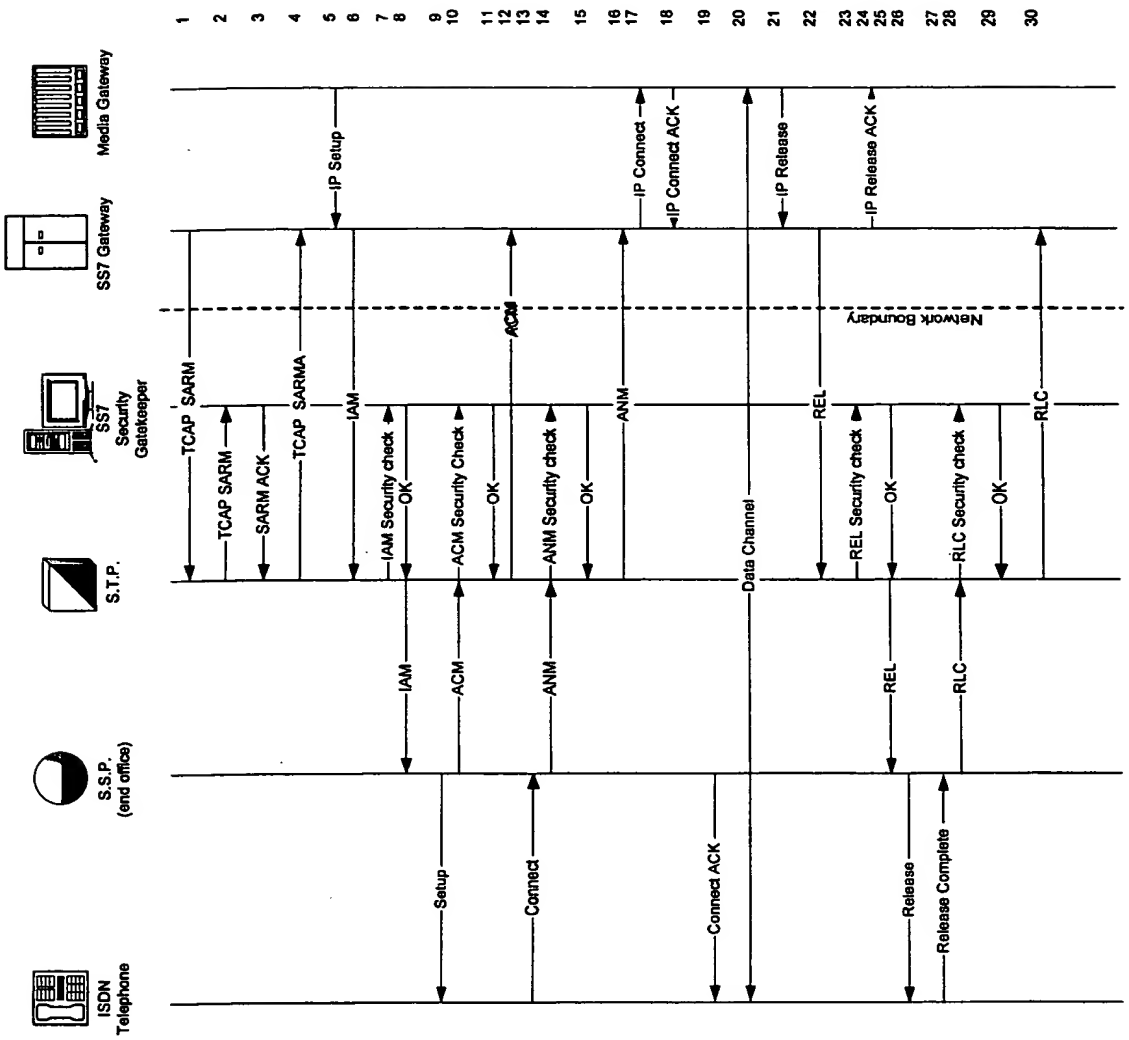


Figure 13

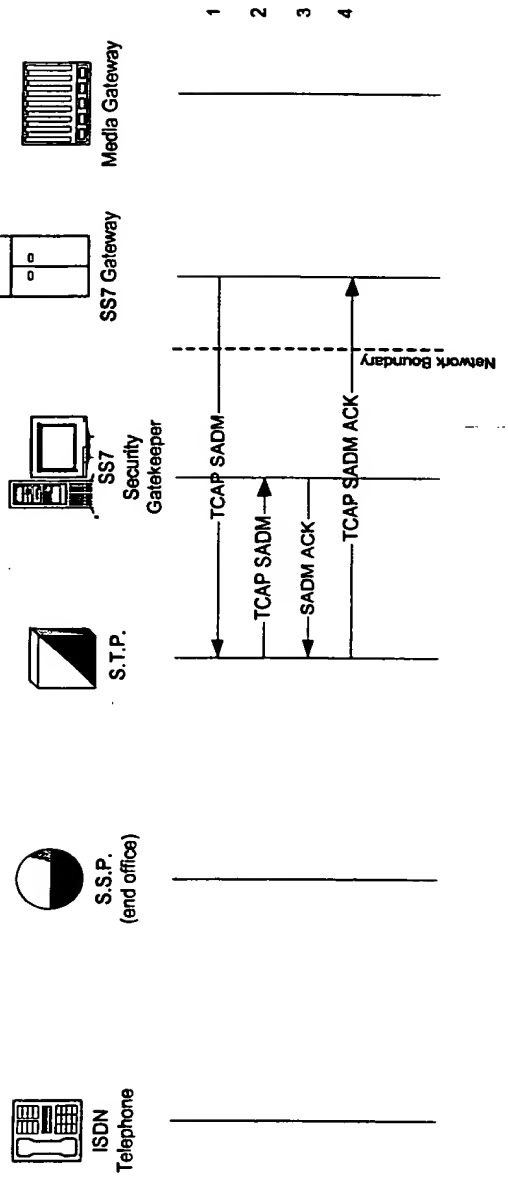


Figure 14

"10101" 2636460

TOTOOT "2267B760

**Initial Address Message**

| | |
|---|---|
| SIO and Routing Label | |
| CIC Low-Order Octet | |
| 2-bits spare | CIC High-Order 6-bits |
| Message Type = 1 | |
| Nature of Connection Indicators | |
| Forward Call Indicator Bits H..A | |
| Forward Call Indicator Bits P..I | |
| Calling Party Category | |
| Offset of 1st Mandatory Var. Parameter | |
| Offset of 2nd Mandatory Var. Parameter | |
| Offset of Start of Operational Part | |
| Length Indicator of User Service Info | |
| User Service Information<br>No. of Octets = Length Indicator Value | |
| Length Indicator of Called Party No. | |
| Called Party Number<br>No. of Octets = Length Indicator Value | |
| Optional Parameter Code | |
| Optional Parameter Length Indicator | |
| Optional Parameter<br>No. of Octets = Length Indicator Value | |
| End of Optional Parameters Indicator | |

Fig. 15

**Address Complete Message**

| | |
|---|---|
| SIO and Routing Label | |
| CIC Low-Order Octet | |
| 2-bits spare | CIC High-Order 6-bits |
| Message Type = 6 | |
| Backward Call Indicator Bits H..A | |
| Backward Call Indicator Bits P..I | |
| Offset to Start of Optional Part | |
| Optional Parameter Code | |
| Optional Parameter Length Indicator | |
| Optional Parameter<br>No. of Octets = Length Indicator Value | |
| End of Optional Parameters Indicator | |

Fig. 16

FULBRIGHT & JAWORSKI, L.L.P.
Attny Docket:414.036CIP/09908722
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Date Filed: February 5, 2001
Title: Method and Apparatus for In Context...
Sheet 13 of 15

TOTOOT" 22618260

**Answer Message**

| | |
|---|---|
| SIO and Routing Label | |
| CIC Low-Order Octet | |
| 2-bits spare | CIC High-Order 6-bits |
| Message Type = 9 | |
| Offset to Start of Optional Part | |
| Optional Parameter Code | |
| Optional Parameter Length Indicator | |
| Optional Parameter<br>No. of Octets = Length Indicator Value | |
| End of Optional Parameters Indicator | |

Fig. 17

**Release Complete Message**

| | |
|---|---|
| SIO and Routing Label | |
| CIC Low-Order Octet | |
| 2-bits spare | CIC High-Order 6-bits |
| Message Type = 16 | |

Fig. 19

**Release Message**

| | |
|---|---|
| SIO and Routing Label | |
| CIC Low-Order Octet | |
| 2-bits spare | CIC High-Order 6-bits |
| Message Type = 12 | |
| Offset of 1st Mandatory Var. Parameter | |
| Offset of Start of Operational Part | |
| Length Indicator of Cause Indicators | |
| Release Cause Indicator Parameter<br>No. of Octets = Length Indicator Value | |
| Optional Parameter Code | |
| Optional Parameter Length Indicator | |
| Optional Parameter<br>No. of Octets = Length Indicator Value | |
| End of Optional Parameters Indicator | |

Fig 18

FULBRIGHT & JAWORSKI, L.L.P.
Attny Docket:414.036CIP/09908722
Inventor(s): Arthur DOSKOW, et al
Serial No.: 09/781,922
Date Filed: February 5, 2001
Title: Method and Apparatus for In Context...
Sheet 14 of 15

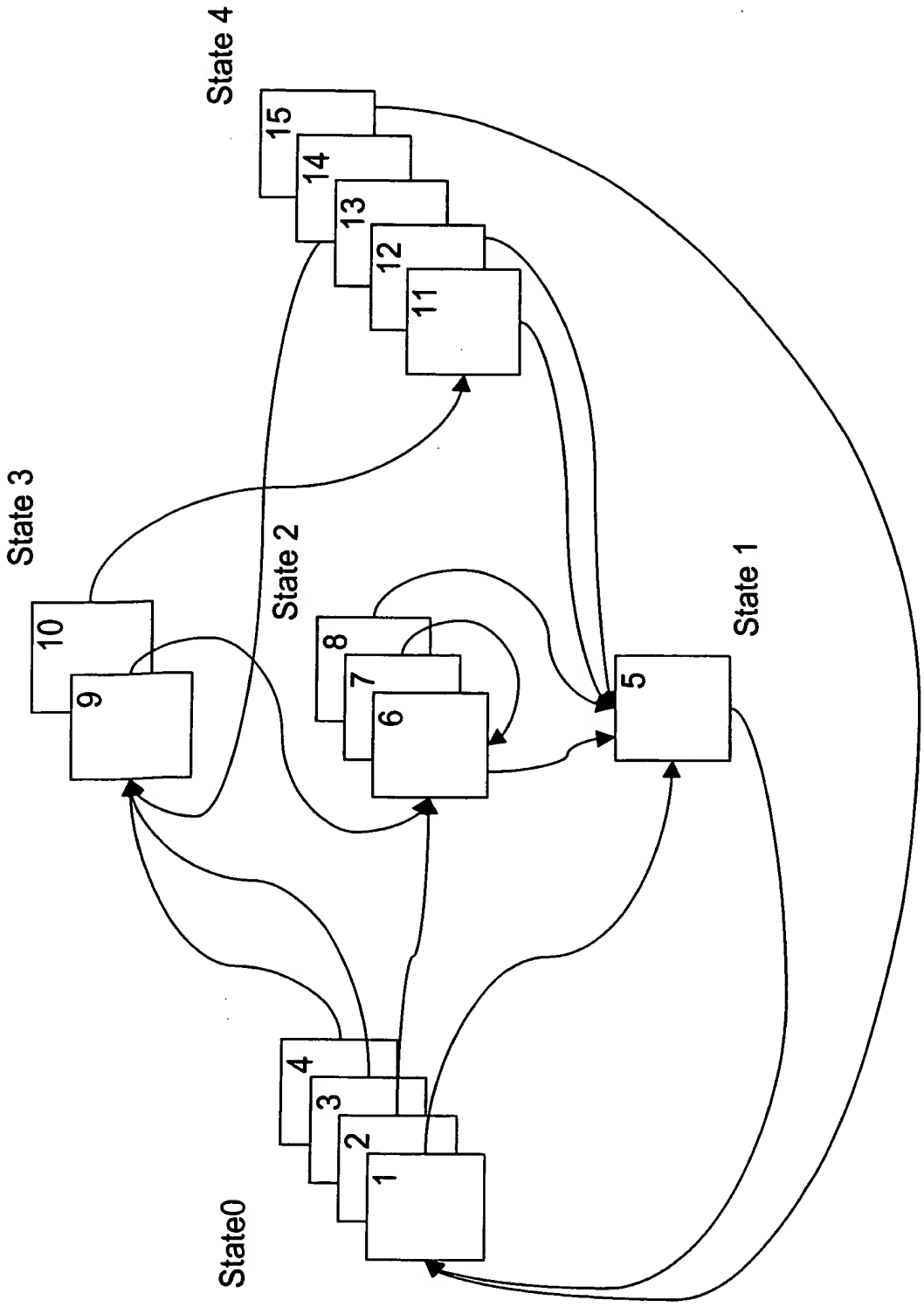


Fig. 20

"EXPRESS MAIL" 2265784650